UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,263	12/22/2004	Jeffrey Raymond Smidt	6106-001/NP	8978

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EXAMINER
KIM, TAE K

ART UNIT	PAPER NUMBER
2153	

MAIL DATE	DELIVERY MODE
02/06/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/519,263	SMIDT ET AL.
	Examiner	Art Unit	
	Tae K. Kim	2153	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 November 2007*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 December 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☒ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06)　　　　　　　　Office Action Summary　　　　　　　　Part of Paper No./Mail Date 20080201

DETAILED ACTION

This is in response to the Applicant's response filed on November 21, 2007.

Claims 1 – 29, where Claims 1, 15, and 26 are in independent form, are presented for

examination.

Claim Objections

Regarding the objections to Claims 1, 15, and 26, the Applicant amended the

claims as suggested by Examiner. Examiner withdraws the objections.

Response to Arguments

Applicant's arguments filed November 21, 2007 have been fully considered but

they are not persuasive. Applicant argued:

a)   Neither Vaid nor Clark disclose a method, system or gateway for

monitoring and controlling data transfer in communication networks in

which data transfer is monitored and/or controlled, and specifically in

which bandwidth available to user terminals is dynamically controlled in

real time, on the basis of an authenticated IP address and an

authenticated user;

b)   One skilled in the art at the time of the invention would not have applied

the authentication process of Clark to Vaid invention

Examiner respectfully disagrees with applicant's assertions.

1.   With regards to a), Clark specifically discloses of authenticating the user by requesting a user ID and password prior to assigning an IP address to the user (Col. 4, Lines 17, 29-39).

2.   With regards to b), it would have been obvious to one skilled in the art to combine the teachings of Vaid and Clark. Vaid specifically discloses the need to regulate bandwidth based to "provide more valued applications and *users* with more reliable and faster service. Less critical applications and *users* are provided with a service level that is appropriate" (Col. 3, Lines 30-34; emphasis added). Therefore, the type of user needs to be identified to differentiate the quality of service provided (bandwidth) to that user. Furthermore, the "priorities of *clients*, servers, and URLs hosted in the user's network or servers" (Co. 14, Lines 62-63; emphasis added) are taken into consideration when developing traffic policies. Therefore, it would have been obvious to one skilled in the art that user preferences or user distinction is necessary and disclosed in Vaid and to combine the additional teachings in Clark to the Vaid invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 – 7, 11, 15 – 17, 21 – 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,078,953, invented by Aseem Vaid et al. (hereinafter referenced as "Vaid"), in view of U.S. Patent 6,442,588 B1, invented by Clark et al. (hereinafter referenced as "Clark").

3.   Regarding Claims 1, 15, and 26, Vaid discloses of a method and system of monitoring and controlling data transfer between a user terminal coupled to a first communication network (Abstract; Fig. 1; method and system for controlling traffic and monitoring such traffic to ensure a quality of service within the communication network) and a second communication network, said first communication network coupled to said second communication network, via a gateway and a firewall (Abstract; Figs. 1 and 5; network includes firewall server and traffic management tool coupled to the firewall server which are between the LAN and Internet). The disclosed system and method also simultaneously monitors at the firewall the transfer of data between the user terminal and the second communication network (Col. 10, Lines 29-36; continuous traffic management cycle that includes monitoring phase) and dynamically controls real time bandwidth available to the user terminal (Col. 18; Lines 46-51; real-time monitoring and controlling of traffic). Vaid also discloses that the traffic management is implemented using rule-based techniques within the firewall (Col. 3, Lines 38-40). However, Vaid does not specifically disclose that the user sends an access request to the gateway from the user terminal requiring access to the second communication network or that the gateway reads the access request and modifies at least one access

rule in the firewall to permit access for the user terminal requesting access based on an authenticated IP address of the user terminal requesting access.

Clark discloses a method and system of monitoring and controlling data transfer between communication networks where the user sends an access request to the gateway from the user terminal requiring access to the second communication network (Fig. 2; Col. 3, Lines 20-22; user requests access to online services or internet). Clark also discloses that the gateway reads the access request and modifies at least one access rule in the firewall to permit access for the user terminal requesting access based on an authenticated IP address of the user terminal requesting access, where the authenticated IP address includes authentication of a user (Col. 4, Lines 17, 29-39; user requested for authentication of ID and password, then IP address is assigned to user and authenticated to access the services requested). It would be obvious to one skilled in the art to apply the authentication process disclosed in Clark to the invention disclosed in Vaid. Requiring authentication of each user terminal limits the number of unauthorized users that are allowed to communicate and utilize the limited bandwidth within the communication system. This allows a communication system to better allocate the provided bandwidth and meet certain requirements or quality of service policies requested by the user.

4.   Regarding Claims 2, 25, and 28, Vaid, in new of Clark, discloses all the limitations of Claims 1, 15, and 26 as stated above. Vaid further discloses that the dynamic control of bandwidth available to the user terminals occurs whilst maintaining communication of the user terminal with the second communication network (Col. 17,

Lines 27-31, 35-38, and 40-48; combination of flow control and queuing is used to

dynamically change bandwidth varying on the demand requested by the user while

keeping the user connected).

5.   Regarding Claims 3, 4, 21, and 22, Vaid, in view of Clark, discloses all the

limitations of Claims 1 and 15 above. Vaid further discloses of restricting the bandwidth

regardless of when it is allocated to a single user terminal or a plurality of user terminals

(Fig. 1; Col. 3, Lines 21-26, 34-35; single point of access to monitor and control

communication traffic either at a one computer terminal or a firewall connected to

multiple users).

6.   Regarding Claims 5 and 24, Vaid, in view of Clark, discloses all the limitations of

Claims 1 and 15 above. Vaid further discloses that the bandwidth is restricted for

uploading data and/or downloading data (Col. 12; Lines 59-61).

7.   Regarding Claim 6, Vaid, in view of Clark, discloses all the limitations of Claim 1

above. Vaid further discloses that the restricted bandwidth is allocated to one or more

terminals for a prescribed time period (Col. 10, Lines 37-39; monitor and control

activities at various times).

8.   Regarding Claim 7, Vaid, in view of Clark, discloses all the limitations of Claim 1

above. Vaid further discloses that a restricted bandwidth is allocated to one or more

terminals on the basis of a priority status allocated to the one or more terminals or a

user account (Col. 10, Lines 44-46, 49-52).

9.   Regarding Claims 11 and 23, Vaid, in view of Clark, discloses all the limitations

of Claims 1 and 15 above. Vaid further discloses of controlling the access of a user

terminal to the second communication network from a management terminal coupled to

the first communication network and restricting bandwidth to a user account (Col. 13,

Lines 1-5, and 32-43; FAIR module controls the bandwidth by parameters such as

class, session, burst, packet, and others; class examples include IP address, subnet

mask, destination, etc.).

10.   Regarding Claims 16 – 18, Vaid, in view of Clark, discloses all the limitations of

Claim 15 above. Vaid further discloses that both the firewall and gateway can be

comprised in a single machine (Fig. 1; Col. 6, Lines 6-8) or in different machines (Fig. 4,

5, and 6; Col. 9, Lines 8-11 and 60-65; tool can be stand-alone at the WAN access point

as a conventional firewall with a separate gateway).

Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Vaid, in view of Clark, and in further view of U.S. Patent 6,272,127 B1,

invented by Michael E. Golden (hereinafter referenced as "Golden").

11.   Regarding Claims 8 and 19, Vaid, in view of Clark, discloses all the limitations of

Claims 1 and 15 as stated above. Neither Vaid nor Clark, however, specifically

discloses that the user terminal can be authenticated by the gateway using an

encryption/decryption process.

Golden discloses the use of data encryption/decryption to securely transmit and

receive data within a packet-switched communication system (Col. 15, Lines 32-36 and

49-56). It would be obvious to one skilled in the art to use the encryption/decryption

process to authenticate the user terminal that requested access to the second

communication network. Instead of requesting authentication of a user terminal via user

ID and password, the system itself can automatically authenticate the user terminal via

the encryption keys encapsulating the transmitted data. This provides the system the

ability to authenticate via software and remove the need of authenticating the

communication terminal through human participation.

Claims 9, 10, 12 – 14, 20, 27, and 29 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Vaid, in view of Clark, and in further view of U.S. Appl.

2002/0026503 A1, filed by Samuel Bendinelli et al. (hereinafter referenced as

"Bendinelli").

12.   Regarding Claims 9, 10, 20, 27, and 29, Vaid, in view of Clark, discloses all the

limitations of Claims 1, 15, and 26 as stated above. Vaid further discloses that the

traffic monitoring and controlling tool based on traffic classes, which can be but not

limited to, IP addresses, subnet, network, time, protocol, network, etc. (Col. 13, Lines

33-43). Vaid also disclosed that the traffic tool is the single point to manage and control

traffic from one communication network to another (Fig. 1; Col. 3, Lines 21-26). Neither

Vaid nor Clark, however, specifically discloses that all ports of access of one or more

user terminals are monitored or that these port can be enabled and/or disabled.

Bendinelli discloses the use of additional parameters to filter the packets that are

allowed to pass through the firewall, which include protocol, ports, and direction (Pg. 22,

Para. 0243). It would be obvious to one skilled in the art to monitor and control the

ports of access on a user terminal. Doing so provides additional measures of

controlling and filtering content, which can be categorized into various traffic classes, to

collaborate with the traffic policies and traffic rules that maintain and effectively utilize the bandwidth available to the communication network.

13.   Regarding Claims 12 – 14, Vaid, in view of Clark, discloses all the limitations of Claim 1 as stated above. Vaid nor Clark, however, specifically discloses monitoring the period of time a user terminal has access to the second communication network, quantity of data a user terminal uploads and/or downloads, or the cost to a user having access to the second network.

Bendinelli discloses the monitoring between the gateway and base network bandwidth statistics, including quantity of data from each terminal and time intervals of user access to the bandwidth (Figs. 42-44; Pg. 32, Para. 0388, 0389, and 0392). Bendinelli further discloses the method of determining the cost to the user having access to the second communication network (Fig. 29; Pg. 34, Para. 0356). It would be obvious to one skilled in the art to include such statistics to better monitor the usage in various terminals and also by various users. Monitoring both time intervals and quantity of bandwidth access allows the system to predict future uses of bandwidth and better accommodate for quality of service and user demands on the network bandwidth. Additionally, the ability to determine the cost of a user terminal to access the second communication network would also be obvious to implement to adjust the priorities of various users. Users can pay a higher premium for higher percentages of the bandwidth and for higher quality of service requirements for the various services they are accessing within the second communication network.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae K. Kim, whose telephone number is (571) 270-1979. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B. Burgess, can be reached on (571) 272-3949. The fax phone number for submitting all Official communications is (703) 872-9306. The fax phone number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the examiner at (571) 270-2979.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

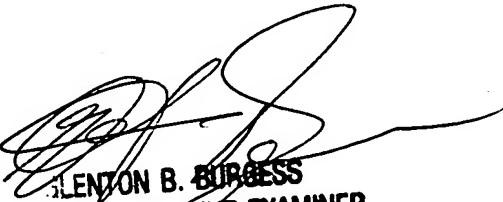Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at (866) 217-9197 (toll-free).

TKK

February 1, 2008

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